

Figure 3

Single Recess Geometry

Source → Drain

wsd

ws

wd

w

Lg

d

a

xg

x

Gate

Ohmic Contacts

Separation / μm wsd 2

Source width / μm ws 10

Drain width / μm wd 10

Schottky Contacts

Gate length / μm Lg .15

Gate position / μm xg .8

Recess Geometry

Width / μm w .52

Position / μm x .8

Depth / μm d .77E-03

Angle / degrees a 60

Inter-electrode Capacitances / fF

Cgsp 8.6 Cgdp 8.1 Cdsp 43 ☐ Auto

OK Reset Cancel

Figure 4



HEMT Active Layer

| Layer | Material | Doping | Thickness |
|-----------|---------------------|--------|--------------|
| Layer 10 | GaAs | Nd | 6.00E18 500A |
| Layer 9 | AlGaAs 25% | Na | 1.00E14 480A |
| Layer 8 | AlGaAs 25% | Nd | 2.00E19 20A |
| Layer 7 | AlGaAs 25% | Na | 1.00E14 20A |
| Layer 6 | InGaAs 22% | Na | 1.00E14 140A |
| Layer 5 | AlGaAs 25% | Na | 1.00E14 30A |
| Layer 4 | AlGaAs 25% | Nd | 6.00E18 16A |
| Layer 3 | AlGaAs 25% | Na | 1.00E14 300A |
| Layer 2 | AlGaAs 16.5% | Na | 1.00E14 150A |
| Layer 1 | AlGaAs 8.5% | Na | 1.00E14 150A |
| Buffer | GaAs | | 3000A |
| Substrate | S.I. GaAs Substrate | | |

Edit Layers

Add Delete Insert Move Copy Reset

OK Cancel

Figure 5

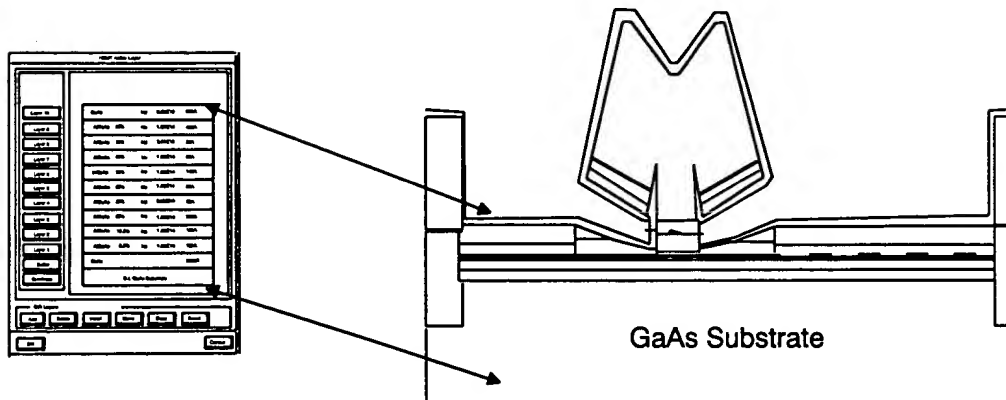


Figure 6